

1831 an homopterous insect has shown itself, and multiplying rapidly has committed great ravages; this is *Delphax saccharivora*, Westwood. Two other insects, apparently belonging to the Aphididæ and Coccidæ, have more recently been highly injurious to the sugar-canes, and others of this class equally infest other plants. The cocoa-nuts are so attacked by an *Aleyrodes*, that when the author quitted Barbados there was not a single healthy tree left.

The list of Crustacea is compiled by Mr. Adam White. Sir Robert Schomburgk believes that, if thoroughly examined, the islands and seas of the West Indian Archipelago would yield probably four times as many species as are at present known, and states that although the marine fauna of these islands is still insufficiently known to enable us to deduce results as to the distribution of the Crustacea, it is Mr. White's opinion that many of the species discovered by Jay and his correspondents on the south shores of the United States will eventually be found in the West Indian Archipelago.

The number of Mollusca found in the neighbourhood of Barbados is by no means large, and the author having been disappointed of a list, gives a catalogue of those found both in Barbados and the West Indies in general.

The Fishes, determined by Profs. Müller and Troschel, include a number of new species and one new genus, *Caprophonus*, Müll. et Trosch., belonging to the family Scomberoidæ. The Reptilia are sparingly represented in Barbados: the *Iguana tuberculata*, the largest of the Saurians, is now very scarce. Only one snake has been found, and the sight of a specimen is a rare occurrence; it is perfectly harmless, and from the description given to the author, probably a *Tortrix*.

The number of indigenous birds does not amount to fifteen, and there are about forty species recorded as birds of passage, or only occasionally seen on the island. The absence of woods and umbrageous trees is doubtless the cause of this paucity. A British bird, the Ruff Sandpiper, *Philomachus pugnax*, L., is recorded for the first time as occurring on the other side of the Atlantic. It was sent to the author among other migratory birds, but the communicator, Mr. Bishop, observed that its name was not known; thence it may be inferred that its occurrence in Barbados is a rare circumstance. Our space does not admit of more than this hasty glance over the contents of this book, but we hope that it will be sufficient to convince our readers of the interest attaching to it, and induce them to become acquainted with the details by a perusal of the work itself.—A. H.

Zoological Recreations. By W. J. BRODERIP, Esq., F.R.S.

A pleasant book on a delightful subject with a pleasing title. This work, which we should have noticed before, consists of a series of papers written by one of our most talented lawyers for the pages of the New Monthly Magazine, from which their author, urged by Professor Owen and other scientific friends, has reprinted them. He has done well in collecting these papers, for he has given us another book belonging to a class far too rare, in which White of Selborne, Knapp,

Waterton, Darwin and Gosse have earned laurels. The chief object of this class of works is to please while they instruct, to enliven as well as to enlighten, to awaken as well as to cherish a love for natural history. Along with Kirby and Spence, and in the same list with Alexander Wilson the American ornithologist, the authors specified above and the writer at the head of this article may be placed.

A popular writer is too often deemed by the mere scientific man, not profound, and there may be at times some truth in it; Mr. Broderip however is not superficially acquainted with some of the chapters of the book of nature. He is well known as a scientific conchologist, whose very fine collection of shells, many of them originally described by himself, were acquired by Parliament for the nation and deposited in the British Museum. His writings and compilations in the Cyclopædia of the Useful Knowledge Society have done much to diffuse a taste for natural history, and in the work before us, leaving for a time strict science, he delights us with many pleasing chapters on birds and beasts.

There are two excellent chapters on our resident and migratory singing-birds, right pleasant reading at this time of year, from the associations they call up of spring and summer. He discourses pleasantly on owls, a grave subject; and from chattering, gay-coloured parrots and parrakeets turns to gobbling turkeys or bubbly jocks, one of which, the ocellated turkey (*Meleagris ocellatus*), he strongly urges some patriotic individual to introduce to this country. The Earl of Derby has one specimen in his noble aviary and menagerie at Knowsley, but we fear that the bird is a widow, and likely long to continue so: it is strange that his lordship has been hitherto unsuccessful in finding a mate for this bird. From swans, wild and tame, which

“on sweet St. Mary’s Lake,”

and on other lakes and streams as well,

“float double, swan and shadow,”

our author most undesignedly passes to a chapter of advice to anglers, —a fertile theme, unexhausted and inexhaustible, as witness the writings of Izaak Walton, Sir Humphry Davy—how Walton would have *loved* the chemist, and the sculptor Sir Francis Chantrey, even although he wrote no ‘*Salmonia*’!—of Mr. Yarrell, of Scrope, of John Wilson (the renowned Christopher North), of Jesse, *cum multis aliis*—“Good luck to your fishing:” there seems to be some freemasonry in the *thing* itself, and there is certainly something most attractive in the *subject*.

Whether the spring-filled song on the bonny month of May in page 172, immediately after the “Word to Anglers,” be the buoyant spirits that flow from the subject just touched upon, we know not, but the five stanzas come in most opportunely and read most pleasantly. We have not got half through the book, and must leave dogs and cats, (surely Mr. Broderip, like Jeremy Bentham, is a bachelor,) apes and monkeys, and the grave, gigantic and graphically described elephants, for another notice; with three chapters on Dragons, Mr.

Broderip concludes his volume. How happy are we that we live in days when these monsters are doomed to lie petrified in oolitic rocks or extended, carved curiously "by art and man's device," out of the solid stone, and gazed at, in and through glass cases, in the National Museum! The work of Mr. Broderip is very readable, and it would prove instructive to many a scientific man, as well as amuse his leisure hour. We have no doubt that this work will "cherish," as well as "awaken, a love for natural history."—A. W.

An Experimental Inquiry into the Cause of the Ascent and Descent of the Sap, &c. By G. RAINEY, M.R.C.S.E.

Whatever may be the value of these inquiries, it is certain that they have led the author to some conclusions which will appear rather curious to most botanical anatomists. For instance, he endeavours to show that the crude sap ascends in the substance of the cell-walls and intercellular matter without passing through the cavities of the cells or vessels, and his reasons are founded upon the experiment of causing plants to imbibe certain solutions and then decomposing these in sections placed beneath the microscope, when the solid walls alone exhibit the coloured product (!). If we were to strain a solution of bichloride of mercury through a piece of gauze, and then to decompose this by hydrosulphate of ammonia and to examine the gauze by a magnifier, it is probable that we should find the *substance* alone coloured, but we should hardly deduce from this that no bichloride of mercury had passed through the interstices.

The author's way of accounting for the formation of vessels is equally original; he shows that "the wall of a vessel is formed by the union of the external thickened wall of the surrounding cells."

The various experiments and details respecting the movement of the sap and the growth of plants offer nothing of value which is not already well known.

In these days it is absolutely necessary that students of a science should make themselves *clearly* acquainted with the results of the labours of their predecessors: had the author of the present little volume done so, he would have saved much valuable time and application.—A. H.

MISCELLANEOUS.

Extracts from a Letter to THOMAS BELL, Esq., F.R.S., from GEORGE CLARK, Esq., of Mauritius.

Port Louis, June 5th, 1847.

*** "I venture to lay before you the following description of some bullocks, brought hither from the island of Lombach, near Java. One cargo only has been imported, and it does not appear likely that any more will be brought. Their characteristics are so novel to me that I determined to describe them to you.